

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
SAN DIEGO REGION

**ADDENDUM NO. 1 TO CLEANUP AND ABATEMENT ORDER NO. 88-89**

**SINGER COMPANY ELECTRONIC SYSTEMS DIVISION  
BAE SYSTEMS INFORMATION AND ELECTRONIC SYSTEMS INTEGRATION, INC.**

**FORMER BAE SYSTEMS AEROSPACE SAN MARCOS FACILITY**

**1370 SAN MARCOS BOULEVARD, SAN MARCOS, CALIFORNIA  
SAN DIEGO COUNTY**

The California Regional Water Quality Control Board, San Diego Region (hereinafter, Regional Board) finds that:

*REGULATORY AND FACTUAL BACKGROUND*

1. **CLEANUP AND ABATEMENT ORDER NO. 88-89.** Except as contradicted or superceded by the findings and directives set forth in this Cleanup and Abatement Order Addendum, (Addendum No.1) all of the previous findings and directives of Cleanup and Abatement Order No. 88-89 shall remain in full force and effect.
2. **PERSONS RESPONSIBLE.** Singer Company Electronics Division (Singer) conducted electronic navigational guidance system component manufacturing at the site from 1963 until 1988. Various parties have assumed responsibility for cleanup and abatement at the site as a result of corporate mergers and acquisitions and real property transactions since 1988. BAE assumed responsibility for cleanup and abatement activities in 1999. Singer Company, Electronic Systems Division, and BAE Systems Information and Electronic Systems Integration, Inc. (BAE) are jointly referred to as "Discharger(s)" in this Addendum.
3. **SOIL REMEDIAL ACTIONS.** The Discharger(s) has submitted the required technical reports to demonstrate that soil cleanup levels required in the CAO were achieved.
4. **REMEDIAL ACTION PLAN.** On May 3, 2004 the Regional Board received a work plan titled Groundwater Cleanup Workplan submitted by BAE that proposes supplemental remedial measures. The work plan proposes to inject a carbohydrate solution into affected ground water to promote biodegradation of chlorinated hydrocarbons. The work plan also proposes alternative risk-based cleanup levels. This document is hereinafter referred to as the Remedial Action Plan.

### *CLEANUP GOALS AND OBJECTIVES*

5. **REVISED CLEANUP GOALS.** Modification of Cleanup and Abatement Order 88-89 is necessary to a) establish cleanup goals based on appropriate remedial objectives that are protective of human health and the environment; b) include additional cleanup levels for waste constituents not listed in CAO 88-89 and; c) establish cleanup goals based on the low potential for dissolved metals waste constituents in on-site ground water to reach nearby surface waters.
6. **CLEANUP OBJECTIVES.** Based on site-specific conditions, the cleanup levels prescribed in Directive A.1. of this CAO Addendum are protective of human health and water resources as prescribed in Resolution 92-49 *Policies and Procedures for Investigation and Cleanup and Abatement of Discharges Under Water Code Section 13304* and Section 20400(c) of Title 27 of the California Code of Regulations. Ground water cleanup levels for other chemical waste constituents prescribed in Directive A.1. are protective of the beneficial uses of San Marcos Creek and were determined based on (a) human health risk assessment (for recreational use exposure); (b) ecological risk assessment for exposures to freshwater aquatic wildlife in San Marcos Creek and (c) the vapor risk pathway for occupants of buildings that overlie impacted ground water. Directive A.1. also includes cleanup levels for Volatile Organic Chemicals (VOCs) that were not addressed in CAO No. 88-89. These VOCs are 1,2-dichloroethylene, vinyl chloride, 1,2-dichloroethane, benzene, chloroform, Freon 113, and 1,4-dioxane. Directive A.2. addresses a fourth risk pathway, risk to human health based on consumption of fish or shellfish that can bioaccumulate contaminants or contaminant metabolites. The California Toxics Rule (CTR) provides water quality criteria that address the bioaccumulation pathway. Cleanup levels specified in Directive A.1. must result in attainment of CTR water quality criteria in San Marcos Creek.

### *STATUTORY AND REGULATORY FINDINGS*

7. **LEGAL AND REGULATORY AUTHORITY.** This Order is based on (1) Section 13267 and Chapter 5, Enforcement and Implementation commencing with Section 13300 of the Porter-Cologne Water Quality Control Act (Division 7 of the Water Code, commencing with Section 13000); (2) applicable state and federal regulations; (3) all applicable provisions of statewide Water Quality Control Plans adopted by the State Water Resources Control Board and the *Water Quality Control Plan for the San Diego Basin* (Basin Plan) adopted by the Regional Board including beneficial uses, water quality objectives, and implementation plans; (4) State Water Board policies, including State Water Board Resolution No. 68-16 (*Statement of Policy with Respect to Maintaining High Quality of Waters in California*) and Resolution No. 92-49 (*Policies and Procedures for Investigation and Cleanup and Abatement of Discharges Under Water Code Section 13304*); and (5) relevant standards, criteria, and advisories adopted by other state and federal agencies.

8. **CEQA EXEMPTION.** This enforcement action is exempt from the provisions of the California Environmental Quality Act (CEQA) in accordance with Section 15321 (Enforcement Actions by Regulatory Agencies), Chapter 3, Title 14 of the California Code of Regulations.

*ORDER DIRECTIVES*

**IT IS HEREBY ORDERED**, that pursuant to sections 13267 and 13304 of the California Water Code, Singer Company, Electronic Systems Division, and BAE Systems Information and Electronic Systems Integration, Inc. (hereinafter, Discharger(s)) shall comply with the following directives:

**A. CLEANUP AND ABATE DISCHARGES**

1. ***Duty to Comply.*** The Discharger(s) shall take all corrective actions necessary to cleanup VOC waste constituents to attain the following cleanup level concentrations in ground water:

| <b>VOC<br/>Waste Constituent</b> | <b>Cleanup Levels (mg/L)</b> |
|----------------------------------|------------------------------|
| 1,1-Dichloroethane               | 3.28                         |
| 1,1-Dichloroethylene             | 2.28                         |
| 1,1,1-Trichloroethane            | 1.3                          |
| Trichloroethylene                | 1.384                        |
| Tetrachloroethylene              | 0.02                         |
| 1,2-Dichloroethylene             | 8.06                         |
| 1,2-Dichloroethane               | 1.0                          |
| Vinyl chloride                   | 0.00907                      |
| Toluene                          | 1.269                        |
| Benzene                          | 0.165                        |
| Chloroform                       | 1.15                         |
| 1,1,2-Trichloroethane            | 0.51                         |
| Freon 113                        | 0.413                        |
| 1,4 Dioxane                      | 3.78                         |

2. ***Duty to Comply.*** The Discharger(s) shall take all corrective actions necessary to prevent further significant migration of wastes or hazardous substances through subsurface transport to waters of the State. The Discharger(s) shall implement corrective actions sufficient to meet all applicable relevant and appropriate requirements pertaining to San Marcos Creek including applicable water quality criteria listed in the California Toxics Rule.

## **B. REMEDIAL ACTION PLAN (RAP) IMPLEMENTATION**

1. ***RAP Implementation.*** The Discharger(s) shall begin implementation of the ground water Remedial Action Plan (including any addenda to the RAP) by December 16, 2005. Before beginning RAP implementation activities, the Discharger shall comply with the following:
  - a. Provide a detailed RAP implementation schedule to the Regional Board by December 16, 2005; and
  - b. Comply with any conditions set by the Regional Board, including mitigation of adverse consequences from cleanup activities.
2. ***Implementation Schedule.*** The Discharger(s) implementation of the RAP shall be completed on a schedule to be established by the Regional Board in a subsequent CAO amendment.

## **C. CLEANUP AND ABATEMENT COMPLETION VERIFICATION**

1. ***Closure Report.*** The Discharger(s) shall submit a final Closure Report verifying completion of the Remedial Action Plan through sampling or other monitoring of the ground water for a period of at least one year. The monitoring period shall begin immediately after the completion of remedial action measures and be conducted at quarterly intervals.
  - a. The report shall provide a demonstration, based on a sound technical analysis, that cleanup levels for all waste constituents are attained at all monitoring points and throughout the zone affected by the waste constituents, including any portions thereof that extend beyond the facility boundary.
  - b. The closure report shall summarize the cleanup activities that were conducted along with ground water and verification sampling results, both in tabular and graphic form. In addition, this report should include a detailed rationale that explains why site closure is appropriate. The rationale should include a demonstration that remaining on-site impacts will not present a future threat to the beneficial uses of San Marcos Creek.
2. ***Regional Board Concurrence.*** Upon concurrence with the findings of the Closure Report that remedial actions are complete and that compliance with this Cleanup and Abatement Order is achieved, the Regional Board will inform the Discharger(s) and other interested persons in writing that no further remedial work is required at this time, based on available information. This written notice shall constitute Regional Board concurrence with the completed remedial actions.

3. ***Decommission of Wells and Treatment System(s.)*** Within 120 days after receipt of a letter from the Regional Board stating that no further remedial action is required, the Discharger shall destroy all monitoring and extraction wells at the facility in accordance with California Department of Water Resources and the County of San Diego requirements.

#### D. PROVISIONS

1. ***Residual Waste.*** The Discharger(s) shall properly manage, treat, and/or dispose of contaminated soils and ground water in accordance with applicable federal, state, and local laws and regulations. The cleanup, handling, storage, treatment, or disposal of soil, sediment, and ground water containing waste constituents shall not create conditions of pollution, contamination or nuisance as defined in California Water Code section 13050(m). The Discharger(s) shall, as required by the Regional Board, obtain, or apply for coverage under, waste discharge requirements or a conditional waiver of waste discharge requirements, for the removal of waste from the immediate place of release and for any discharge of the waste to (a) land for treatment, storage, or disposal or (b) waters of the state.
2. ***Request to Provide Information.*** The Discharger(s) may present characterization data, preliminary interpretations and conclusions as they become available, rather than waiting until a final report is prepared. This type of on-going reporting can facilitate a consensus being reached between the Discharger(s) and the Regional Board and may result in overall reduction of the time necessary for regulatory approval.
3. ***Waste Constituent Analysis.*** Unless otherwise permitted by the Regional Board, all analyses shall be conducted at a laboratory certified for such analyses by the State Department of Health Services. Specific methods of analysis must be identified. If the Discharger proposes to use methods or test procedures other than those included in the most current version of "*Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846*" (U.S. Environmental Protection Agency) or 40 CFR 136, "*Guidelines Establishing Test Procedures for the Analysis of Pollutants; Procedures for Detection and Quantification*", the exact methodology must be submitted for review and must be approved by the Regional Board prior to use. The director of the laboratory whose name appears on the certification shall supervise all analytical work in his/her laboratory and shall sign all reports submitted to the Regional Board.
4. ***Duty to Use Qualified Professional.*** The Discharger(s) shall provide documentation that plans and reports required under this Order are prepared under the direction of appropriately qualified professionals. California Business and Professions Code Sections 6735, 7835 and 7835.1 require that engineering and geologic evaluations and judgments be performed by or under the direction of registered professionals. The Discharger(s) shall include a statement of qualifications and registration numbers, as applicable; of the responsible lead professionals in all plans and reports required under this order. The lead professional shall sign and affix their registration stamp, as applicable, to the report, plan, or document.

5. ***Electronic and Paper Media Reporting Requirements.*** Beginning July 1, 2005 the Discharger(s) shall submit both electronic and paper copies of all reports required under this Order including work plans, technical reports and monitoring reports. The Discharger(s) shall comply with electronic reporting requirements of CCR Title 23, Division 3, Section 3893, including the provision requiring that complete copies of all reports be submitted in PDF format, and include the signed transmittal letter and professional certification.
6. ***Corporate Signatory Requirements.*** All reports required under this Order shall be signed and certified by a responsible corporate officer(s) of the Discharger described in paragraph 6.a. of this provision or by a duly authorized representative of that person as described in paragraph 6.b. of this provision.
  - a. ***Responsible Corporate Officer(s).*** For the purposes of this provision, a responsible corporate officer means: (i) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy - or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.
  - b. ***Duly Authorized Representative.*** A person is a duly authorized representative only if:
    1. The authorization is made in writing by a person described in paragraph (a) of this provision;
    2. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual (A duly authorized representative may thus be either a named individual or any individual occupying a named position.); and
    3. The written authorization is submitted to the Regional Board.
      - i. ***Changes to Authorization*** - If an authorization under paragraph (b) of this provision is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of paragraph (b) of this provision must be submitted to the Regional Board prior to or together with any reports or information to be signed by an authorized representative.
      - ii. ***Certification Statement*** - Any person signing a document under paragraph a. or b. of this provision shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

7. **Reporting of Changes in Owner or Operator.** The Discharger(s) shall notify the Regional Board of any changes in site occupancy or ownership associated with the property described in this Order.
8. **Duty to Submit Other Information.** When the Discharger(s) becomes aware that it failed to submit any relevant facts in any report required under this Cleanup and Abatement Order, or submitted incorrect information in any such report, the Discharger(s) shall promptly submit such facts or information to the Regional Board.
9. **Report Submittals.** All monitoring and technical reports required under this Order shall be submitted to:

Executive Officer  
California Regional Water Quality Control Board  
San Diego Region  
9174 Sky Park Court, Suite 100  
San Diego, CA 92123-4340  
Attn: Site Mitigation and Cleanup Unit

10. **Identify Documents Using Code Number.** In order to assist the Regional Board in the processing of correspondence and reports submitted in compliance with this Cleanup and Abatement Order, the Discharger shall include the following code number in the header or subject line portion of all correspondence or reports submitted to the Regional Board:

**SMC: 50-0556.05**

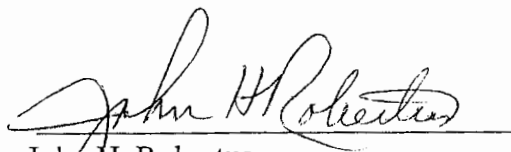
#### E. NOTIFICATIONS

1. **Cost Recovery.** The Discharger(s) shall reimburse the State for all reasonable costs actually incurred by the Regional Board to investigate unauthorized discharges of waste and to oversee cleanup of such waste, abatement of the effects thereof, or other remedial action, required by this Order, according to billing statements prepared from time to time by the State Water Resources Control Board. If the Discharger is enrolled in a reimbursement program managed by the State Water Resources Control Board for the discharge addressed by this Order, reimbursement shall be made pursuant to the procedures established in that program. Any disputes raised by the Discharger over reimbursement

amounts or methods used in that program shall be consistent with the dispute resolution procedures for that program.

2. **Enforcement Discretion.** The Regional Board reserves its right to take any enforcement action authorized by law for violations of the terms and conditions of this Cleanup and Abatement Order/Addendum.
3. **Enforcement Notification.** The Porter-Cologne Water Quality Control Act (Division 7 of the Water Code, commencing with Section 13000), commencing with Chapter 5, Enforcement and Implementation, Section 13308, provides that if there is a threatened or continuing violation of a cleanup and abatement order, the Regional Board may issue a Time Schedule Order prescribing a civil penalty in an amount not to exceed \$10,000 per day for each day compliance is not achieved in accordance with that time schedule. Section 13350 provides that any person may be assessed administrative civil liability by the Regional Board for violating a cleanup and abatement order in an amount not to exceed \$5,000 for each day the violation occurs, or on a per gallon basis, not to exceed \$10 for each gallon of waste discharged. Alternatively the court may impose civil liability in an amount not to exceed \$15,000 for each day the violation occurs, or on a per gallon basis, not to exceed \$20 for each gallon of waste discharged. Section 13385 provides that any person may be assessed administrative civil liability by the Regional Board for violating a cleanup and abatement order for an activity subject to regulation under Division 7, Chapter 5.5 of the California Water Code, in an amount not to exceed the sum of both of the following: (1) \$10,000 for each day in which the violation occurs; and (2) where there is a discharge, any portion of which is not susceptible to cleanup or is not cleaned up, and the volume discharged but not cleaned up exceeds 1,000 gallons, an additional liability not to exceed \$10 multiplied by the number of gallons by which the volume discharged but not cleaned up exceeds 1,000 gallons. Alternatively the civil liability may be imposed by the court in an amount not to exceed the sum of both of the following: (1) \$25,000 for each day in which the violation occurs; and (2) where there is a discharge, any portion of which is not susceptible to cleanup or is not cleaned up, and the volume discharged but not cleaned up exceeds 1,000 gallons, an additional liability not to exceed \$25 multiplied by the number of gallons by which the volume discharged but not cleaned up exceeds 1,000 gallons.

*I, John H. Robertus, Executive Officer, do hereby certify the forgoing is a full, true, and correct copy of the Addendum No. 1 to Cleanup and Abatement Order No. 88-89 issued on November 2, 2005.*

  
John H. Robertus  
Executive Officer